

Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

Monthly Progress Report September 2005

Toll Bridge Program Oversight Committee







Released: October 2005



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California Department of Transportation



Bay Area Toll Authority



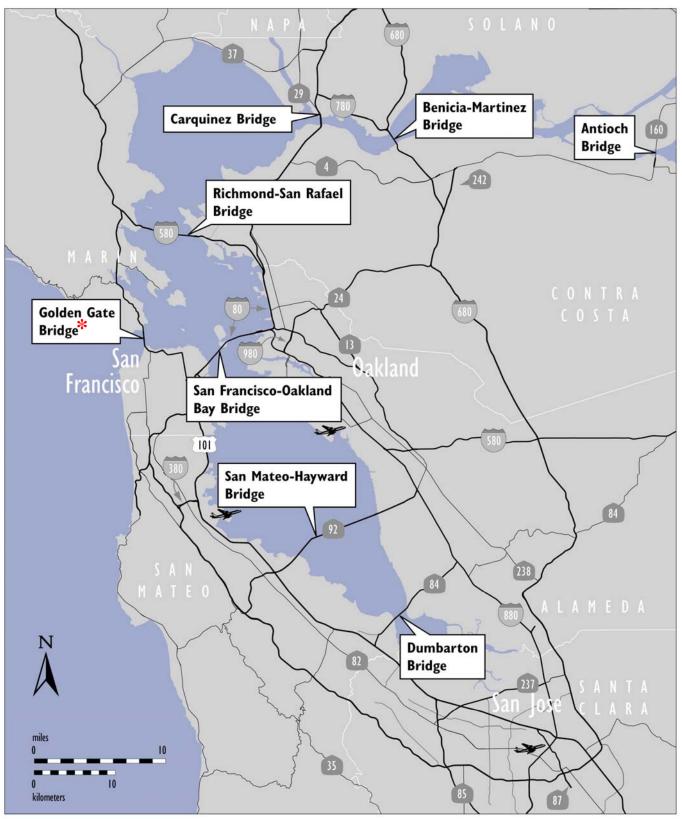
California Transportation Commission



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Toll Bridges of the San Francisco Bay Area



^{*} Under the Jurisdiction of the Golden Gate Bridge, Highway and Transportation District

INTRODUCTION

In July 2005, Assembly Bill 144, Hancock (AB 144) created the Toll Bridge Project Oversight Committee (TBPOC) to implement a project oversight and project control process for the Benicia-Martinez Bridge project and the state toll bridge seismic retrofit program projects. Comprised of the Caltrans Director, the Bay Area Toll Authority (BATA) Executive Director and the Executive Director of the California Transportation Commission (CTC), the TBPOC's project oversight and control processes include but are not limited to reviewing bid specifications and documents, providing field staff to review ongoing costs, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the committee) and preparing project reports.

AB 144 identified the Toll Bridge Seismic Retrofit Program and the new Benicia-Martinez Bridge Project as under the direct oversight of the TBPOC. The Toll Bridge Seismic Retrofit Program includes:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Construction
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
Eastbound Carquinez Bridge Seismic Retrofit	Complete
Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The new Benicia-Martinez Bridge is part of a larger program of toll-funded projects, called the Regional Measure 1 (RM1) Toll Bridge Program, under the responsibility of the BATA. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans (CT) will continue to report on their progress as an informational item. The RM1 program includes:

RM1 Projects	Open to Traffic Status
New Benicia-Martinez Bridge	Construction
1927 Carquinez Bridge Demolition	Construction
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Design
Interstate 880/State Route 92 Interchange Reconstruction	Design
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

This report focuses on identifying critical project issues and monitoring project cost and schedule performance for the projects as measured against approved budgets and schedule milestones. This report is intended to fulfill Caltrans' requirement to provide monthly project progress reporting to the TBPOC under Section 30952.05 of the Streets and Highway Code.

EXECUTIVE SUMMARY

Toll Bridge Seismic Retrofit Program—Cost (\$Millions)

Project	Work Status	AB 144 Budget	Approved Changes	Current Budget	Actual Cost To Date (08/2005)	Estimate at Completion	At- Completion Variance	Cost Status
a	b	С	d	e = c + d	f	g	h = g - e	i
SFOBB East Span Replacement Project								
Capital Outlay Support		959	-	959	380	959	-	•
Capital Outlay Construction								
Skyway	Construction	1,293	-	1,293	889	293	-	•
SAS Superstructure	Advertise	1,754	-	1,754	-	1,754	-	•
SAS E2/T1 Foundations	Restart	314	-	314	66	314	-	•
YBI Transition Structures	Design	299	-	299	-	299	-	•
Oakland Touchdown	Design	284	-	284	-	284	-	•
South/South Detour	Design/ Const	132	-	132	23	132	-	•
Existing Bridge Demolition	Design	239	-	239	-	239	-	•
Stormwater Treatment Measures	Design	15	-	15	-	15	-	•
East Span Completed Projects		90	-	90	89	90	-	
Right-of-Way and Environmental Mitigation		72	-	72	39	72	-	•
Other Budgeted Capital		35	-	35	-	35	-	
Total SFOBB East Span Replacement Project		5,487	-	5,487	1,487	5,487	-	
SFOBB West Approach Replacement	Construction							•
Capital Outlay Support		120	-	120	67	120	-	
Capital Outlay Construction		309	-	309	151	309	-	
Total SFOBB West Approach Replacement		429	-	429	218	429	-	
Richmond-San Rafael Bridge Retrofit	Construction							•
Capital Outlay Support		134	-	134	121	127	(7)	
Capital Outlay Construction		780	-	780	639	681	(99)	
Total Richmond-San Rafael Bridge Retrofit		914		914	760	808	(106)	
Program Completed Projects	Complete							
Capital Outlay Support		220	-	220	219	220	-	
Capital Outlay Construction		706	-	706	702	706	-	
Total Program Completed Projects		925	-	925	921	925	-	
Miscellaneous Program Costs		30	-	30	25	30	-	
Program Contingency		900	-	900	-	1,006	106	
Total Toll Bridge Seismic Retrofit Program		8,685	-	8,685	3,410	8,685	-	

Within Approved Schedule and Budget

Operation
Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation

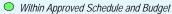
Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming Note: Details may not sum to totals due to rounding effects.

Toll Bridge Seismic Retrofit Program—Schedule

Project	Project Complete AB 144 Baseline	Project Complete Forecast	Schedule Variance (Months)	Schedule Status	Remarks
a	b	C	d = c - b	e	f
SFOBB East Span Replacement Project					
Skyway	Apr 07	Apr 07	-		Fabrication issues concerning the Skyway hinge pipe beams could impact project schedule and budget. See page 10
SAS Superstructure	Mar 12	Mar 12	-	•	This contract is being re-advertised. See page 12.
SAS E2/T1 Foundations	Jun 08	Jun 08	-	•	The suspension of work on this contract has been lifted. Caltrans is
					negotiating revised cost and schedule for project. See page 14.
YBI Transition Structures	Nov 13	Nov 13	-	•	, , , , ,
Oakland Touchdown	Nov 13	Nov 13	-	•	
YBI South/South Detour	Jul 07	Jul 07	-	•	
Existing Bridge Demolition	Sep 14	Sep 14	-	•	
Stormwater Treatment Measures	Mar 08	Mar 08	-	•	
Open to Traffic Date: West Bound	Sep 11	Sep 11	-	•	
Open to Traffic Date: East Bound	Sep 12	Sep 12	-	•	
SFOBB West Approach Replacement	Aug 09	Aug 09	-	•	
Richmond-San Rafael Bridge Retrofit	Aug 05	Sep 05	1	•	Seismic retrofit completed July 29, 2005. Formal acceptance of this contract in October 2005.

Regional Measure 1 Program—Cost (\$Millions)

Capital Outlay Support Capital Outlay Construction Capital Outlay Right-of-Way Project Reserve Total New Benicia-Martinez Bridge Project Carquinez Bridge Replacement Project Capital Outlay Support	ork Status	July 2005 Budget	Approved Changes	Current Budget	Actual Cost To Date (08/2005)	Estimate at Completion	At- Completion Variance	Cost Status
Capital Outlay Support Capital Outlay Construction Capital Outlay Right-of-Way Project Reserve Total New Benicia-Martinez Bridge Project Carquinez Bridge Replacement Project Capital Outlay Support	b	С	d	e = c + d	f	g	h = g - e	i
Capital Outlay Construction Capital Outlay Right-of-Way Project Reserve Total New Benicia-Martinez Bridge Project Carquinez Bridge Replacement Project Capital Outlay Support	nstruction							•
Capital Outlay Right-of-Way Project Reserve Total New Benicia-Martinez Bridge Project Carquinez Bridge Replacement Project Capital Outlay Support		168	-	168	136	184	16	
Project Reserve Total New Benicia-Martinez Bridge Project Carquinez Bridge Replacement Project Capital Outlay Support		901	-	901	688	997	96	
Total New Benicia-Martinez Bridge Project Carquinez Bridge Replacement Project Capital Outlay Support		20	-	20	12	20	0	
Carquinez Bridge Replacement Project Co Capital Outlay Support		13	-	13	-	56	43	
Capital Outlay Support		1,102	-	1,102	836	1,257	155	
	nstruction							•
Conital Outlant Construction		124	-	124	113	125	1	
Capital Outlay Construction		381	-	381	341	383	2	
Capital Outlay Right-of-Way		10	-	10	10	10	-	
Project Reserve		12	-	12	-	9	(3)	
Total Carquinez Bridge Replacement Project		528	-	528	463	528	0	
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Design							
Capital Outlay Support		8	-	8	1	8	-	
Capital Outlay Construction		17	-	17	-	21	4	
Project Reserve		0	-	0	-	0	(0)	
Total Richmond-San Rafael Bridge Deck Overlay Rehabilitation		25	-	25	1	29	4	
I-880/SR-92 Interchange Reconstruction	Design							
Capital Outlay Support		29	-	29	24	43	14	
Capital Outlay Construction		95	-	95	-	119	24	
Capital Outlay Right-of-Way		10	-	10	7	12	2	
Project Reserve		0	-	0	-	12	12	
Total I-880/SR-92 Interchange Reconstruction		134	-	134	31	186	53	
Program Completed Projects	Complete							
Capital Outlay Support		54	-	54	52	54	(0)	
Capital Outlay Construction		308	-	308	308	304	(4)	
Capital Outlay Right-of-Way		2	-	2	1	1	(1)	2
Project Reserve		2	-	2	0	1	(1)	2
Total Program Completed Projects		365	-	365	360	359	(6)	365
Total Regional Measure 1 Program		2,154		2,154	1,692	2,359	205	2,154



O Potential Cost and Schedule Impacts:

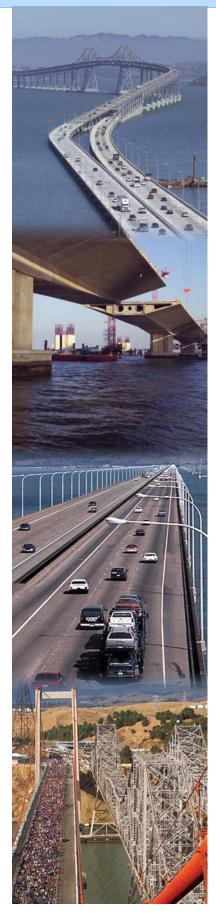
Known Cost and Schedule Impacts:

Note: Details may not sum to totals due to rounding effects.

Regional Measure 1 Program—Schedule

Project	Project Complete Baseline	Project Complete Forecast	Schedule Variance (Months)	Schedule Status	Remarks
a	b	С	d = c - b	е	f
New Benicia-Martinez Bridge Project	Dec 07	Dec 07	-	•	Construction issues may impact the cost/schedule for this project. See page 28.
1927 Carquinez Bridge Demolition Project	Dec 07	Sep 07	(3)	•	
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Jan 07	Jan 07	-	•	
I-880/SR-92 Interchange Reconstruction	Nov 10	Dec 10	1	•	Environmental clearance issues have impacted the cost/schedule for this project. See page 36.

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PROJECT / CONTRACT REPORTS

Toll Bridge Seismic Retrofit Program

- San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary
 - Skyway Contract
 - Self-Anchored Suspension (SAS) Superstructure Contract
 - Self-Anchored Suspension (SAS) E2/T1 Foundation Contract
 - Yerba Buena Island (YBI) South/South Detour Contract
 - Other Major Contracts in Design
 - Other Contracts and Related Project Work
- San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project
- Richmond-San Rafael Bridge Seismic Retrofit Project
- Other Completed Seismic Retrofit Projects

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

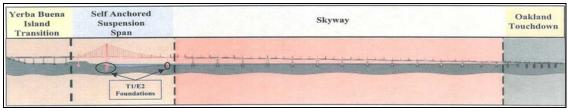
Project Description: The East Span will be seismically retrofitted through the complete replacement of the existing span. The remaining effort for this project consists of the following contracts: Skyway—construction of two parallel concrete structures, each approximately 1.3 miles in length; Self-Anchored Suspension (SAS) Foundation—construction of marine foundations; SAS Superstructure—construction of a self-anchored 385-meter main span superstructure incorporating a 160-meter fabricated structural steel tower with a main cable and inclined suspenders that will support steel orthotropic decks; Yerba Buena Island (YBI) South/South Detour—design and construction of a temporary double-deck bypass structure that will allow traffic to cross the existing SFOBB while completing the westerly permanent tie-in structure of the new East Span at Yerba Buena Island; YBI Structures—construction of a new structure connecting the western end of the self-anchored suspension to the Yerba Buena Island viaduct, which will be retrofitted; Oakland Touchdown—at the Oakland end of the East Span, construction of two parallel, cast-in-place post-tensioned concrete viaducts, which join the skyway to the at-grade Oakland approach fill; Existing Bridge Demolition—demolition of the existing 1936 SFOBB East Span structure after the construction and placement of traffic onto the new East Span.

SFOBB East Span Replacement Cost Summary (\$Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at * Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
Capital Outlay Support	959	-	959	380	959	-
Capital Outlay Construction	-	-	-	-	-	-
Skyway	1,293	-	1,293	889	1,293	-
SAS Superstructure	1,754	-	1,754	-	1,754	-
SAS E2/T1 Foundations	314	-	314	66	314	-
YBI Structures	299	-	299	-	299	-
Oakland Touchdown	284	-	284	-	284	-
YBI South/South Detour	132	-	132	23	132	-
Existing Bridge Demolition	239	-	239	-	239	-
Stormwater Treatment Measures	15	-	15	-	15	-
East Span Completed Projects	90	-	90	89	90	-
Right-of-Way and Environmental Mitigation	72	-	72	39	72	-
Other Budgeted Capital	35	-	35	-	35	-
TOTAL	5,487	-	5,487	1,487	5,487	-

Note: Details may not sum to totals due to rounding effects.

^{*}The estimate at completion does not include the effect of a forthcoming cost proposal from the E2/T1 Foundations Contractor concerning that contract's re-start of work.



SFOBB East Span Replacement Project

SFOBB East Span Replacement Schedule Summary

Contract	Baseline Project Completion Date	Forecast Project Completion Date	Variance (Months)
Skyway	April 2007	April 2007	-
YBI South / South Detour	July 2007	July 2007	-
Stormwater Treatment Measures	March 2008	March 2008	-
SAS E2/T1 Foundations	June 2008	June 2008	-
Open to Traffic: West Bound	September 2011	September 2011	-
SAS Superstructure	March 2012	March 2012	-
Open to Traffic: East Bound	September 2012	September 2012	-
Oakland Touchdown	November 2013	November 2013	-
YBI Transition Structure	November 2013	November 2013	-
Existing Bridge Demolition	September 2014	September 2014	-

Project Status: Construction is currently ongoing on the Skyway and the YBI South/South Detour contracts. The SAS E2/T1 Foundation contract is currently in the process of restarting, and the SAS Superstructure contract has been re-advertised. See the following contract detail pages for more information.

Project Issues: See the following contract detail pages for more information.

Recent TBPOC Actions: In July, the TBPOC approved the restart of the SAS E2/T1 Foundation contract and recommended to the Bay Area Toll Authority the re-advertisement of the SAS Superstructure contract. See the following contract detail pages for more information.

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

▶ SKYWAY CONTRACT

Contract Description: The Skyway contract constructs two parallel pre-cast concrete approach spans from Oakland to the self-anchored suspension span near Yerba Buena Island.

Skyway Cost Summary (\$Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	e	f	g = f - d
East Span - Skyway						
Capital Outlay Support	197	-	197	110	197	-
Capital Outlay Construction	1,293	-	1,293	889	1,293	-
TOTAL	1,490	-	1,490	999	1,490	-

Note: Details may not sum to totals due to rounding effects.

Skyway Schedule Summary

Contract		Baseline Contract Completion Date	Forecast Contract Completion Date	Variance (Months)
	East Span - Skyway	April 2007	April 2007	-

Contract Status: The Skyway contract is currently in construction and is 80% complete. Work continues on the two remaining footing boxes that support the bridge. The pier tables on the eastbound structure are complete, while the westbound structure has six pier tables in various stages of construction. The pre-cast yard in Stockton continues casting segments. Segment erection activities are ongoing. To date, 339 of the 452 pre-cast concrete deck sections have been fabricated; 206 have been installed.

Contract Issues:

Issue	Mitigating Action				
A schedule delay is currently projected by the contractor due to issues with the fabrication of the hinge pipe beams that connect the major frames of the bridge.	While Caltrans is evaluating the contractor's fabrication methodology for the pipe beams, the contractor is currently mitigating the schedule delays by resequencing segment erection activities. The projected delay to the Skyway project is not expected to delay the overall opento-traffic date for the East Span Replacement project.				

Recent TBPOC Actions: None.

Contract Photographs

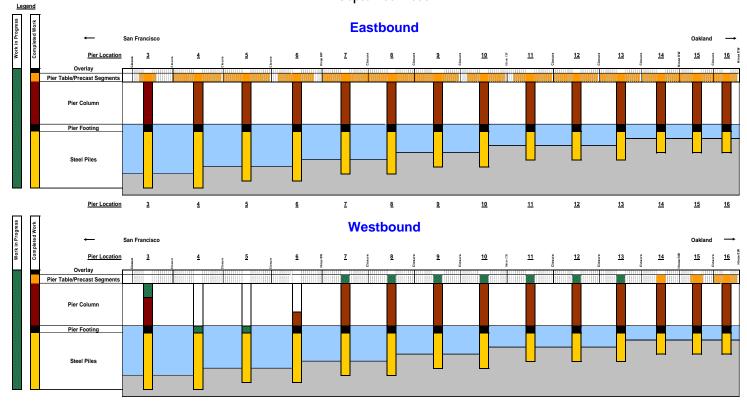






View of the new roadway section (looking west)

San Francisco-Oakland Bay Bridge East Span Replacement Project - Skyway Contract September 2005



San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

▶ SELF-ANCHORED SUSPENSION (SAS) SUPERSTRUCTURE CONTRACT

Contract Description: The Self-Anchored Suspension (SAS) Superstructure contract constructs a signature tower span between the skyway and the Yerba Buena Island transition structure. Work on the SAS bridge has been split between three contracts—the SAS Superstructure (in advertisement), the SAS E2/T1 Foundation (under construction), and the SAS W2 Foundation (completed).

SAS Superstructure Cost Summary (\$Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Varian ce
a	b	С	d = b + c	e	f	g = f - d
East Span - SAS Superstructure						
Capital Outlay Support	215	-	215	14	215	-
Capital Outlay Construction	1,754	-	1,754	-	1,754	-
TOTAL	1,968	-	1,968	14	1,968	-

Note: Details may not sum to totals due to rounding effects.

SAS Superstructure Schedule Summary

Contract	Baseline Contract Completion Date	Forecast Contract Completion Date	Variance (Months)
East Span - SAS Superstructure	March 2012	March 2012	-

Contract Status: The SAS Superstructure Contract was re-advertised on August 1, 2005. Bid opening is scheduled for February 1, 2006. Two contractor outreach sessions were held during August, 2005. A Contractor/Fabricator/Supplier meeting will be held on September 23, 2005. Caltrans is currently evaluating and responding to contractor inquires (111 inquiries received as of September 7, 2005) and preparing addenda to the contract plans and specifications as necessary. Key technical issues being addressed are the following:

- Caltrans has identified some areas for clarifications to the contract specifications to improve the method of work for the project.
- Caltrans is currently performing analyses to determine potential specification revisions to be included in addenda.

Contract Issues:

Issue	Mitigating Action
Caltrans' Risk Management evaluation of the project identified the potential lack of bidder competition as the greatest risk to maintaining project cost and schedule.	To increase number of bidders, the TBPOC has approved actions to de-federalize the SAS contract, revise the Cost Reduction Incentive Program (CRIP) to be more financially advantageous to contractors, increase the bidder's stipend to \$3 million to the lowest three responsive bidders, and hold additional contractor outreach sessions.

Recent TBPOC Actions:

- In August, the TBPOC approved SAS contract Addendum 1, which changed the call-in telephone number for the August 16, 2005 Contractor Outreach Meeting.
- In September, the TBPOC approved SAS contract Addendum 2, which set the Disadvantaged Veteran's Business Enterprise and Small Business goals for the project and made a number of minor technical and environmental regulatory changes to the project.

Contract Photographs



SAS Superstructure Artist Rendition



SAS Superstructure at Night

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

▶ SELF-ANCHORED SUSPENSION (SAS) E2/T1 FOUNDATION CONTRACT

Contract Description: The Self-Anchored Suspension (SAS) E2/T1 Foundation contract constructs the main tower foundation at T1 and the adjacent east foundation at E2.

SAS E2/T1 Foundation Cost Summary (\$ Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion *	Variance
a	b	С	d = b + c	e	f	g = f - d
East Span - SAS E2 / T1 Foundations						
Capital Outlay Support	53	-	53	7	53	-
Capital Outlay Construction	314	-	314	66	314	-
TOTAL	366	-	366	73	366	-

Note: Details may not sum to totals due to rounding effects.

Foundations Contractor concerning that contract's re-start of work.

SAS E2/T1 Foundation Schedule Summary

Contract	Baseline Contract	Forecast Contract	Variance
	Completion Date	Completion Date	(Months)
East Span - SAS E2 / T1 Foundations	June 2008	June 2008	-

Contract Status: Work on the project was suspended in January 2005. Approximately 20% of the work on the project was completed prior to the suspension of work. Most of the completed work was the fabrication of steel piles. The original contract cost for the project was \$177 million. On July 29, 2005, Caltrans notified the contractor to restart the work on the project. The proposal for the revised schedule is expected from the contractor by September 23, 2005.

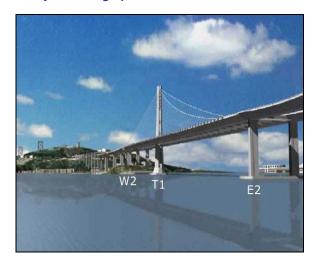
Contract Issues:

Issue	Mitigating Action
E2/T1 Foundations contract must be completed by March 2008 to avoid impact to the SAS Superstructure Contract.	Caltrans has restarted negotiations. This is a high priority action so that the Contractor can resume all work as quickly as possible. Final negotiations are expected to have a significant impact on the project budget and could impact the schedule of the SAS project.
Gaining firm commitment dates for cost-effective steel delivery from suppliers as part of E2/T1 Foundations restart is critical to resuming work.	Caltrans is focused on staying current with issues concerning the restart of the steel supply, to include replacing suppliers if required.

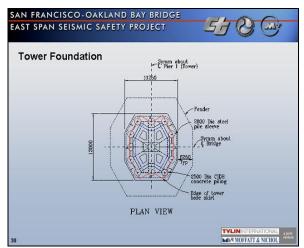
Recent TBPOC Actions: In July, the TBPOC recommended the restart of the SAS E2/T1 Foundation contract.

^{*}The estimate at completion does not include the effect of a forthcoming cost proposal from the E2/T1

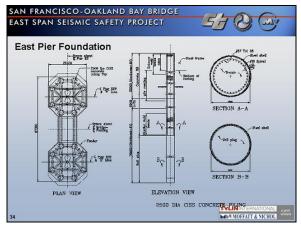
Project Photographs



T1 = Foundation for the 530-foot steel tower E2 = Eastern Support of the suspension roadway W2 = Western Support of the suspension roadway



Tower Foundation



East Pier Foundation

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

▶ YERBA BUENA ISLAND (YBI) SOUTH/SOUTH DETOUR CONTRACT

Contract Description: The Yerba Buena Island (YBI) South/South Detour Contract constructs a temporary detour from the YBI tunnel to the existing east span of the Bay Bridge. This detour maintains traffic on the existing bridge while the YBI Transition Structure Contract completes the tie-in from the SAS to the existing tunnel.

YBI South/South Detour Cost Summary (\$Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
YBI South/South Detour						
Capital Outlay Support	30	-	30	12	30	-
Capital Outlay Construction	132	-	132	23	132	-
TOTAL	161	-	161	36	161	-

Note: Details may not sum to totals due to rounding effects.

YBI South/South Detour Schedule Summary

Contract Baseline Contra Completion Da		Forecast Contract Completion Date	Variance (Months)
YBI South / South Detour	July 2007	July 2007	-

Contract Status: The contract is 30% complete. To minimize impacts on the traveling public, portions of the East and West Tie-in operations remain suspended. The contract is performance based, whereby the contractor is responsible for both designing and constructing the detour structures. The contractor's engineer continues to perform design work on the east and west tie-in structures for the detour.

Contract Issues:

Issue	Mitigating Action
Delay to the SAS contract due to re-advertising has extended the South/South Detour Contract, so as to integrate with the schedule of the SAS contract.	Caltrans is currently reviewing the project costs and schedule based on the revised SAS E2/T1 Foundation and SAS Superstructure project milestones to determine the optimum project schedule for the South/South Detour contract. A revised schedule for the project will likely increase contract costs, but are likely to be within current contract allowances.

Recent TBPOC Actions: None.

Contract Photographs



Temporary Bypass Structure (in yellow)

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

▶ OTHER MAJOR CONTRACTS IN DESIGN

Contract Description: Caltrans is currently designing a number of other major construction contracts that will be necessary prior to opening the new east span, including the Oakland Touchdown and the YBI Transition Structure. Following opening of the new bridge, the existing bridge will be removed with the Bridge Demolition contract.

Other Major Contracts Cost Summary (\$Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
Capital Outlay Support	239	-	239	29	239	-
Capital Outlay Construction						
YBI Transition Structure	299	-	299	-	299	-
Oakland Touchdown	284	-	284	-	284	-
Demolition	239	-	239	-	239	-
Stormwater Treatment Measures	15	-	15	-	15	-
Total Capital Outlay Construction	837	-	837	-	837	-
TOTAL	1,076	-	1,076	29	1,076	-

Note: Details may not sum to totals due to rounding effects.

Other Major Contracts Schedule Summary

Project	Baseline Project Completion Date	Forecast Project Completion Date	Variance (Months)	Design % Complete
Stormwater Treatment Measures	March 2008	March 2008	-	100
YBI Transition Structure	November 2013	November 2013	-	80
Oakland Touchdown	November 2013	November 2013	-	TBD
Existing Bridge Demolition	September 2014	September 2014	-	10

Contract Status: The Stormwater Treatment Measures contract to implement best practices for stormwater runoff treatment will be advertised in fall 2005. Caltrans is currently working on the designs of the Oakland Touchdown and YBI Transition Structure contracts. Design work has not yet been initiated on the Bridge Demolition contract. The scope of the YBI Transition Structure and the Oakland Touchdown Contracts may be split into smaller contracts as a means of improving schedule.

Contract Issues:

Issue

Mitigating Action

The current schedule for the East Span project assumes a single contract for the Oakland Touchdown work. Any delays to either the SAS or Oakland Touchdown contracts could have cost and schedule impacts to opening the project to traffic on time.

Caltrans is studying alternatives to mitigate potential schedule and cost risks by splitting the Oakland Touchdown contract into four contracts. The first contract would construct all the marine foundation work and west-bound approach work earlier to keep the work off the project's critical path. The second contract would construct the remaining east-bound approach when west-bound traffic is shifted onto the new SAS. The two remaining contracts would: replace an existing submerged electrical line to Treasure Island from Oakland and re-landscape the area.

Recent TBPOC Actions: In September, the TBPOC authorized Caltrans to split the Oakland Touchdown project into multiple contracts for advertisement.

Contract Photographs



Artist's Rendition of Oakland touchdown Aerial View.

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

▶ OTHER COMPLETED CONTRACTS AND RELATED WORK

Summary Description: Substantial work has already been performed on the SFOBB East Span Replacement project to facilitate construction of the mainline construction contracts.

Other Contracts and Related Work Cost Summary (\$Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
Capital Outlay Support	227	-	227	209	227	-
Right-of-Way and Environmental Mitigation	72	-	72	39	72	-
Capital Outlay Construction						
SAS W2 Foundations	26	-	26	26	26	-
YBI/SAS Archeology	1	-	1	1	1	-
YBI - USCG Road Relocation	3	-	3	3	3	-
YBI - Substation and Viaduct	12	-	12	11	12	-
Oakland Geofill	8	-	8	8	8	-
Pile Installation Demonstration Project	9	-	9	9	9	-
Existing East Span Retrofit	31	-	31	31	31	-
Total Capital Outlay Construction Completed	90	-	90	89	90	-
TOTAL	390	-	390	336	390	-

Note: Details may not sum to totals due to rounding effects.

Other Contracts and Related Work Schedule Summary

Project	Actual Project Completion Date
Existing East Span Retrofit	October 1997
Pile Installation Demolition Project	December 2000
YBI / SAS Archaeology	January 2003
Oakland Geofill	April 2003
YBI – USCG Road Relocation	June 2004
SAS W2 Foundations	October 2004
YBI Substation and Viaduct	May 2005

Summary Status: Construction has been completed on the above listed contracts. Caltrans continues to work with various environmental agencies to mitigate any environmental impacts from the project.

Contract Issues: None.

Recent TBPOC Actions: None.

San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

Project Description: The SFOBB West Approach Replacement Project will replace the entire west approach structure from the 5th Street on-ramps to the west anchorage of the existing west spans of the SFOBB while maintaining existing traffic lanes for the weekday commute.

SFOBB West Approach Replacement Cost Summary (\$Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
West Approach						
Capital Outlay Support	120	-	120	67	120	-
Capital Outlay Construction	309	-	309	151	309	-
TOTAL	429	-	429	218	429	-

Note: Details may not sum to totals due to rounding effects.

SFOBB West Approach Replacement Schedule Summary

Project	Baseline Project Completion Date	Forecast Project Completion Date	Variance (Months)
West Approach	August 2009	August 2009	-

Project Status: Construction work is 54% complete. Seismic retrofitting construction throughout the project is continuing. I-80 demolition operations are planned to occur over five weekends from the end of September through October. After the demolition of the northern portion of existing frame 7U(N), the contractor can begin the erection of falsework for construction of new frame 7U(N). This work operation is critical to the completion of the west approach. Extensive safety planning precautions have been taken. The Harrison Street off-ramp was closed for reconstruction on September 6, 2005, and will remain closed for the next 3 years. Note that CCO #71 for differing site conditions increasing the Contractor's cost of pile driving operations, was settled in the amount of \$6.7 million. This is a \$4.3 million savings in estimated cost that will remain in contract contingency.

Project Issues

Issue	Mitigating Action
CCO #95 concerns detours and safety issues, and gives direction to the contractor to perform the demolition of Frame 7U over five weekends instead of one longer period in the baseline schedule. This will allow monitoring of the integrity of the bridge. This CCO plus supplements is estimated at \$11 million in value and includes a contract completion date extension of 59 days.	This CCO can be funded from existing contingency allowance.

Recent TBPOC Actions: In September, the TBPOC approved CCO #71 concerning pile driving issues.

Richmond-San Rafael Bridge (RSRB) Seismic Retrofit Project

Project Description: The Richmond-San Rafael (RSR) Bridge Seismic Retrofit Project strengthened the existing bridge to withstand the effects of a large seismic event. Along with the retrofit work, Caltrans performed Regional Measure 1 (RM1) work to replace the existing west trestle and the main channel fenders. (The RM1 work is reported in the RM1 section of the report).

RSRB Seismic Retrofit Cost Summary (\$Millions)

Contract	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
RSRB Seismic Retrofit						
Capital Outlay Support	134	-	134	121	127	(7)
Capital Outlay Construction	780	-	780	639	681	(99)
TOTAL	914	-	914	760	808	(106)

Note: Details may not sum to totals due to rounding effects.

RSRB Seismic Retrofit Schedule Summary

Project	Baseline Project Completion Date	Forecast Project Completion Date	Variance (Months)
RSRB Seismic Retrofit	August 2005	September 2005	1

Project Status: Caltrans achieved seismic safety on the bridge in July 2005. Caltrans is in the process of negotiating final contract change orders and claims on the project with their contractor. Caltrans is expecting at least \$106 million in savings from the AB 144 budget.

Project Issues: None.

Recent TBPOC Actions: In August, the TBPOC authorized Caltrans to engage in negotiations with the contractor within the limits of a not-to-exceed value.

Project Photographs



Richmond-San Rafael Toll Bridge



Richmond-San Rafael Westbound

Other Completed Seismic Retrofit Projects

Summary Description: Caltrans has already completed the seismic retrofits of the West Spans of the SFOBB, the existing 1958 Carquinez Bridge, the existing Benicia-Martinez Bridge, the San Mateo-Hayward Bridge, and two former toll bridges in southern California.

Other Completed Seismic Retrofit Projects Cost Summary (\$Millions)

Project	AB 144 Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Varian ce
a	b	C	d = b + c	ее	f	g = f - d
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project	308	-	308	305	308	-
Carquinez Bridge Retrofit Project	114	-	114	114	114	-
Benicia-Martinez Bridge Retrofit Project	178	-	178	178	178	-
San Mateo-Hayward Bridge Retrofit Project	164	-	164	163	164	-
Vincent Thomas Bridge Retrofit Project	59	-	59	58	59	-
San Diego-Coronado Bridge Retrofit Project	104	-	104	103	104	-
TOTAL	925	-	925	921	925	-

Note: Details may not sum to totals due to rounding effects. Capital Outlay Support and Capital Outlay have been combined.

Other Completed Seismic Retrofit Projects Schedule Summary

Project	Actual Project Completion Date
Vincent Thomas Bridge Retrofit	May 2000
San Mateo-Hayward Bridge Retrofit	June 2000
Carquinez Bridge Retrofit	January 2002
San Diego-Coronado Bridge Retrofit	June 2002
Benicia-Martinez Bridge Retrofit	August 2002
SFOBB West Span Seismic Retrofit	June 2004

Summary Status: Construction has been completed on the above listed projects. The Estimate at Completion amounts shown above include allowances for minor project closeout costs.

Contract Issues: None.

Recent TBPOC Actions: None.

Other Toll Bridges

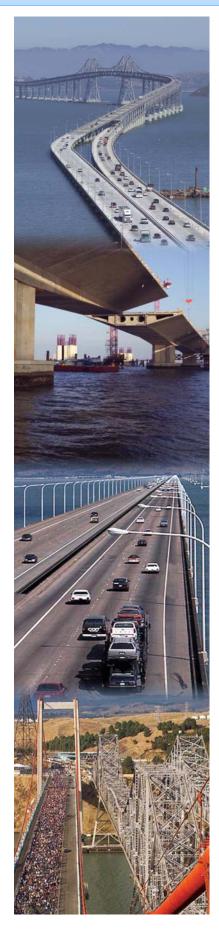
Although the Antioch and Dumbarton bridges are not identified for funding in the TBSRP, the Department is continuing work on the seismic vulnerability studies in order to assess the potential for necessary retrofit work.



Antioch Bridge



Dumbarton Bridge



PROJECT / CONTRACT REPORTS

Regional Measure 1 Program

- ♦ New Benicia-Martinez Bridge Project Summary
 - New Benicia-Martinez Bridge Contract
 - Other Contracts and Related Project Activities
- New Carquinez Bridge Project
- Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Project
- Richmond-San Rafael Bridge Trestle Deck Overlay Project
- Interstate 880 / State Route 92 Interchange Reconstruction
- Other Completed Regional Measure 1 Projects
 - San Mateo-Hayward Bridge Widening Project
 - Richmond Parkway Project
 - Bayfront Expressway Widening Project

Regional Measure 1 Program

New Benicia-Martinez Bridge Project Summary

Project Description: The new Benicia-Martinez Bridge project constructs a new parallel bridge just east of the existing bridge. The project will include reconstructed interchanges to the north and south of the bridges and a new toll plaza and administration building in Martinez.

New Benicia-Martinez Bridge Project Cost Summary (\$Millions)

Contract	June 2005 BATA Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
а	b	С	d = b + c	e	f	g = f - d
Capital Outlay Support	168	-	168	136	184	16
Right-of-Way and Others	20	-	20	12	20	0
Capital Outlay Construction						-
New Bridge	692	-	692	540	771	79
I-680/I-780 Interchange Replacement	92	-	92	66	92	0
I-680/Marina Vista Interchange Reconstruction	55	-	55	50	60	5
New Toll Plaza	24	-	24	17	25	1
Other	38	-	38	14	49	11
Project Reserve*	13	-	13	-	56	43
TOTAL	1,102	-	1,102	836	1,257	155

Note: Details may not sum to totals due to rounding effects.

New Benicia-Martinez Bridge Project Schedule Summary

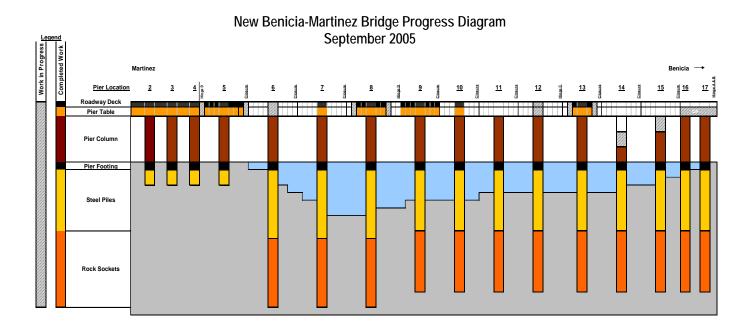
Project	Baseline Project Completion Date	Forecast Project Completion Date	Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	March 2006	-
New Toll Plaza	June 2006	June 2006	-
New Benicia-Martinez Bridge	December 2007	December 2007	-
I-680/I-780 Interchange Replacement	February 2008	February 2008	-
Open to Traffic	February 2008	February 2008	-

Project Status: All major construction projects necessary to open the bridge are currently in construction. Numerous foundation and superstructure issues have significantly delayed the new bridge contract. See the following contract detail pages for more information.

Project Issues: See the following contract detail pages for more information.

Recent TBPOC Actions: None.

^{*} Project Reserve is being re-evaluated based on Caltrans risk analyses.



Project Photographs



New Benicia-Martinez Closure portion between Pier 4 & 5



New Benicia-Martinez Toll Plaza Toll Booth & Canopy Frame

Regional Measure 1 Program

New Benicia-Martinez Bridge Project

▶ NEW BENICIA-MARTINEZ BRIDGE CONTRACT

Contract Description: The new bridge contract constructs a new cast-in-place segmentally constructed reinforced concrete bridge just east of the existing bridge. The new bridge will carry five lanes of eastbound I-680 traffic towards Benicia.

New Benicia-Martinez Bridge Cost Summary (\$Millions)

Contract	June 2005 BATA Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
New Benicia-Martinez Bridge						
Capital Outlay Support	85	-	85	65	98	13
Capital Outlay Construction	692	-	692	540	771	79
TOTAL	777	-	777	605	869	92

Note: Details may not sum to totals due to rounding effects.

New Benicia-Martinez Bridge Schedule Summary

Contract	Baseline Contract Completion Date	Forecast Contract Completion Date	Variance (Months)	
New Benicia-Martinez Bridge	December 2007	December 2007	-	

Contract Status: The contract is 79% complete. The superstructure concrete is in place and post tensioned from the south abutment to pier 4, and barrier rail construction is in progress. Superstructure segments are being cast at piers 5, 8, 9 and 13. In order to maintain concrete temperature within the specified limits, cooling tubes are being installed in the segments and a nitrogen station is in operation for cooling the concrete in the delivery trucks. Eighty-two of 344 segments are complete as of August 13, 2005, for the above mentioned piers. Ten tower cranes are installed and operational. Pier table construction continues at piers 6 and 12, and column construction continues at piers 14 and 15. For Frame 4 cast on falsework, barrier rails, approach slab work, isolation casing covers, grading for drainage and slope paving are complete and continuing with dry finish work on exterior. The falsework on Frame 1 is complete up to Pier 17.

Contract Issues

Contract issues						
Issue	Mitigating Action					
The lightweight concrete mix design is generating an unacceptable amount of heat as it cures; extraordinary measures are being taken to cool the concrete to avoid cracking and extend the life of the bridge. This heat was not anticipated in the project specifications. The cost and schedule impacts of this risk issue are dependent upon the actions taken to mitigate the higher temperatures. This issue may delay completion of the main span.	Actions to lower the temperatures include producing the concrete with ice, introducing liquid nitrogen into the concrete prior to placement, and placing cooling tubes in the concrete elements. Project staff is also evaluating the cost and the critical path schedule to determine opportunities to reduce the cost and time impact of the added measures being taken to lower the temperature of the concrete.					
The estimate at completion for the contract is significantly higher than the current budget for the project. As reported to the BATA Oversight Committee in April 2005, Caltrans has identified significant potential cost increases that are due to a number of issues, including delays, lightweight concrete issues, and additional costs for foundation construction joints.	While the potential cost increases have been incorporated into the estimate at completion, BATA continues to work on a comprehensive funding package to cover the cost of the overruns. BATA staff has also directed Caltrans and BATA's consultant team to reforecast the entire project cost to identify any additional costs.					

Recent TBPOC Actions: None.

Contract Photographs



Looking eastward photo shows pier table construction in progress for pier 6, pier table complete for piers 7 and 10, deck segment construction in progress for piers 8 and 9.

Regional Measure 1 Program

New Benicia-Martinez Bridge Project Summary

▶ OTHER CONTRACTS AND RELATED PROJECT ACTIVITIES

Contract Description: Contracts related to the new Benicia-Martinez Bridge project involve the construction of a new toll plaza south of the new bridge in Contra Costa County with 17 toll booths, including two high-occupancy vehicle (HOV) bypass lanes, and the reconstruction of the I-680/Marina Vista Road and I-680/I-780 interchanges.

Other Contracts and Related Activities Cost Summary (\$Millions)

Contract	June 2005 BATA Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
Capital Outlay Support	83	-	83	70	86	3
Right-of-Way and Environmental Mitigation	20	-	20	12	20	-
Capital Outlay Construction						-
I-680/I-780 Interchange Replacement	92	-	92	66	92	-
I-680/Marina Vista Interchange Reconstruction	55	-	55	50	60	5
New Toll Plaza	24	-	24	17	25	1
Others	38	-	38	14	49	11
Total Capital Outlay Construction	209	-	209	148	226	17
TOTAL	312	-	312	230	332	20

Note: Details may not sum to totals due to rounding effects.

Other Contracts and Related Activities Schedule Summary

Project	Baseline Project Completion Date	Forecast Project Completion Date	Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	March 2006	-
New Toll Plaza	June 2006	June 2006	-
I-680/I-780 Interchange Replacement	December 2007	December 2007	-

Contract Status:

- ◆ Toll Plaza and Administration Building: The contract is 77% complete. Work continues on miscellaneous wiring installation and system testing at the Administration Building, as well as installation of miscellaneous electrical work and metal framing for ceiling and fascia of the canopy at the tollbooths. Site work continued at the east and west side of the parking areas next to the Administration Building, and installation of the chain link fence around the main transformer and back flow preventers at the bottom of PK-Line and Mococo Road.
- ◆ I-680/I-780 Interchange: The contract is approximately 93% complete. All footings, bents, and columns for Bridge 215, which is the northbound I-680 from pier 17, are complete, and superstructure works are in progress. All foundations, bents, and columns for bridges 212 and 214, the westbound I-780 connector, are complete. The deck of bridge 214 will be stressed and grouted by the end of the month. Superstructure work is in progress for bridge 212 and 215.
- ◆ I-680/Marina Vista Interchange: The contract is approximately 93% complete. The Mococco Overhead is complete, including deck, barrier rail, and expansion joints. Work has been completed on lightweight fill up to abutment 1. Cleaning and grading to return to natural grade is in progress from abutments 9 to 6. Continued pile driving operation, with the installation of cast-in-steel-shell (CISS) piles for Retaining Wall #1.
- Wetland Mitigation: The contract is 90% complete and is scheduled for completion in February 2006. Mass excavation between the railroad and Industrial Way, as well as the excavation of the levee across channel A are complete. Sheets from the jacking and receiving pits were pulled and backfilling completed. The excavation of channel A, by the two "water mogs," south of the railroad tracks towards the bay, continued.

Contract Issues

Issue	Mitigating Action

The estimate at completion for the project is significantly higher than the current budget for the project. As reported to the BATA Oversight Committee in April 2005, Caltrans has identified significant potential cost increases due to a number of issues, including delays as a result of the delay to the new bridge contract.

While the potential cost increases have been incorporated into the estimate at completion, BATA continues to work on a comprehensive funding package to cover the cost of the overruns. BATA staff has also directed Caltrans and BATA's consultant team to reforecast the entire project cost to identify any additional costs.

Recent TBPOC Actions: None.

Contract Photographs







New Benicia Toll Plaza - West Parking Lot

New Carquinez Bridge Project

Project Description: The new Carquinez Bridge project involves constructing a new suspension bridge west of the existing bridges with four westbound lanes and a bicycle/pedestrian lane and demolishing the existing 1927 bridge.

New Carquinez Bridge Cost Summary (\$Millions)

Contract	June 2005 BATA Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
а	b	С	d = b + c	е	f	g = f - d
Capital Outlay Support	124	-	124	113	125	1
Capital Outlay Construction						-
Replacement Bridge	253	-	253	253	256	3
South Interchange Reconstruction	74	-	74	69	74	-
Existing 1927 Bridge Demolition	35	-	35	3	35	-
Other	29	-	29	25	28	(1)
Project Reserve	12	-	12	-	9	(3)
TOTAL	528	-	528	463	528	-

Note: Details may not sum to totals due to rounding effects.

New Carquinez Bridge Schedule Summary

Contract	Baseline Project Completion Date	Forecast Project Completion Date	Variance (Months)
New Carquinez Bridge	November 2003*	November 2003*	-
1927 Carquinez Bridge Demolition	December 2007	September 2007	(3)
Landscaping	August 2011	August 2011	-

^{*} The date shown is for the opening of the bridge to traffic.

Project Status: The replacement bridge and all its approaches are complete and opened to traffic. The 1958 bridge approach deck rehabilitation contract was awarded on April 4, 2005. The baseline schedule has been submitted and approved. Submittals are currently being reviewed for the redecking of the 1958 bridge. A traffic switch for eastbound traffic and associated 1958 bridge deck approach rehabilitation work began on September 26, 2005 and will complete by mid-November 2005. Demolition of the 1927 bridge will follow.

Project Issues:

Issue	Mitigating Action
On the Replacement Carquinez Bridge Contract and on the Crocket Interchange Contract, both contractors have submitted claims for various contract issues, including claims on fabrication, labor, and access.	Caltrans is in the process of evaluating the merits of the final claims. BATA staff will direct BATA's consultant team to also evaluate the claims to determine project risk. Project reserves may need to be used.

Project Photographs



Carquinez Bridge Overview



Installation of New Temporary Trestle



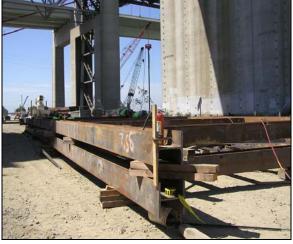
East Overhang Falsework



1958 Carquiez Bridge Deck replacement on the South Approach



Removal of Existing Temporary Trestle.



Falsework for Rail Protective Cover

Richmond-San Rafael Bridge (RSRB) Trestle, Fender, and Deck Joint Rehabilitation **Project**

Project Description: This contract involves replacing the western trestle section of the bridge near San Rafael, and rehabilitating the ship collision fender system at various piers.

RSRB Trestle, Fender, and Deck Joint Rehabilitation Cost Summary (\$Millions)

Contract	June 2005 BATA Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
RSR Trestle, Fender, and Joint Rehabilitation						
Capital Outlay Support	11	-	11	10	11	-
Capital Outlay Construction	91	-	91	101	91	-
Project Reserve	-	-	-	-	-	-
TOTAL	102	-	102	111	102	-

Note: Details may not sum to totals due to rounding effects.

RSRB Trestle, Fender, and Deck Joint Rehabilitation Schedule Summary

Contract	Baseline Contract Completion Date	Forecast Contract Completion Date	Variance (Months)
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation	August 2005	August 2005	-

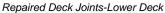
Project Status: Work on this project is completed.

Project Issues

Issue	Mitigating Action
Actual cost-to-date is in excess of budget.	Caltrans/BATA should transfer \$16.9 million in expended cost to the Toll Bridge Seismic Retrofit Account (TBSRA).

Project Photographs







Richmond-San Rafael Trestle

Richmond-San Rafael Bridge (RSRB) Deck Overlay Project

Project Description: Rehabilitate the existing concrete deck on the bridge, damaged due to traffic and exposure to a marine environment.

RSRB Deck Overlay Cost Summary (\$Millions)

Contract	June 2005 BATA Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
RSR Deck Overlay						
Capital Outlay Support	8	-	8	1	8	-
Capital Outlay Construction	17	-	17	-	21	4
TOTAL	25	-	25	1	29	4

Note: Details may not sum to totals due to rounding effects.

RSRB Deck Overlay Schedule Summary

Contract	Baseline Contract Completion Date	Forecast Contract Completion Date	Variance (Months)
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	January 2007	January 2007	-

Project Status: Caltrans completed the project's plans, specifications, and estimate (PS&E) package on August 22, 2005 and submitted the plans to BATA for review and allocation of project funds. Caltrans plans to advertise the project in December 2005 and start construction in March 2006. The forecast contract completion date includes Caltrans' allowance for bad weather.

Project Issues:

Issue	Mitigating Action
Caltrans has reported a higher than budgeted estimate for the project.	BATA staff will review the revised estimate for the project to determine an appropriate recommendation to BATA. Additional funds maybe allocated from the BATA Toll Bridge Rehabilitation Program.

Project Photographs



RSR Concrete Deck Overlay

Interstate 880/State Route 92 Interchange Reconstruction Project

Project Description: Modify the existing cloverleaf interchange to increase capacity and improve safety and traffic operations.

Interstate 880/State Route 92 Interchange Cost Summary (\$Millions)

Contract	June 2005 BATA Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
I-880/SR-92 Interchange Improvement						
Capital Outlay Support	29	-	29	24	43	14
Capital Outlay Construction	95	-	95	-	119	24
Capital Outlay Right-of-Way and Others	10	-	10	7	12	2
Project Reserve	0	-	0	-	12	12
TOTAL	134	-	134	31	186	53

Note: Details may not sum to totals due to rounding effects.

Interstate 880/State Route 92 Interchange Schedule Summary

Project	Baseline Project Completion Date	Forecast Project Completion Date	Variance (Months)
I-880/SR-92 Interchange Reconstruction	November 2010	December 2010	1

Project Status: Caltrans continues work on the preparation of the PS&E package with 100% completion scheduled for January 10, 2006. Design work was delayed due to resolution of utility conflicts. Right-of-way acquisition is in progress. Contract package is scheduled to be advertised by August 2006 and start of construction in November 2006

Project Issues:

Issue	Mitigating Action
Later than anticipated approval of the environmental clearance documents has delayed project delivery by 14 months. This delay among other reasons has contributed to an increase in estimated costs due to escalation.	BATA and Caltrans will perform a complete re-evaluation of the schedule impact with the issuance of the 100% PS&E, and will also determine workaround options that would mitigate the delay to the project. BATA will also review the entire project cost with the 100% PS&E.
The forecast schedule includes an aggressive schedule for right-of-way acquisition that provides for 18 months to clear numerous parcels in the project area.	The impact of right-of-way acquisitions on the schedule will be determined during the previously mentioned schedule assessment. The construction contract will be advertised with an A+B specification, which could reduce the construction duration and recover the project schedule.

Other Completed Regional Measure 1 (RM1) Projects

Summary Description: Other completed Regional Measure 1 projects are the following: (a) Widen the San Mateo-Hayward Bridge along its low-trestle section and its eastern approach, (b) Widen the Bayfront Expressway (SR 84) from the Dumbarton Bridge to the U.S. 101/Marsh Road interchange, (c) Construct an eastern approach (Richmond Parkway) between the Richmond-San Rafael Bridge and Interstate 80 near Pinole, and (d) Modify the U.S. 101/University Avenue interchange.

Other Completed RM1 Projects Cost Summary (\$Millions)

Contract	June 2005 BATA Budget	Approved Changes	Current Budget	Cost To Date (8/05)	Estimate at Completion	Variance
a	b	С	d = b + c	е	f	g = f - d
San Mateo-Hayward Bridge Widening Project	218	-	218	209	212	(6)
Bayfront Expressway Widening Project	35	-	35	33	35	(0)
Richmond Parkway Project	6	-	6	4	6	-
Others	4	-	4	4	4	-
TOTAL	263	-	263	249	256	(6)

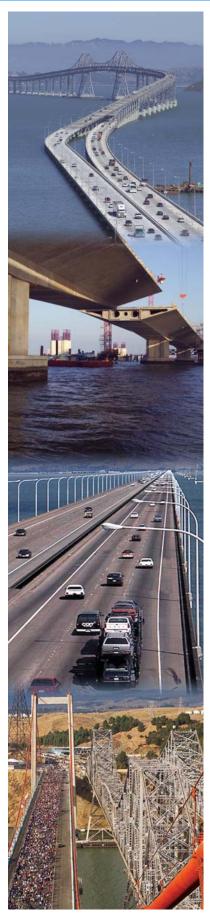
Schedule Summary

Project	Actual Project Completion Date
Richmond Parkway Project	May 2001
San Mateo-Hayward Bridge Widening Project	February 2003
Bayfront Expressway Widening Project	January 2004
Other	April 2004

Project Status: Construction has been completed on the above listed contracts.

Project Issues: None.

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APPENDICES

- A Toll Bridge Seismic Retrofit Program: San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail
- B Toll Bridge Seismic Retrofit Program Cost Detail
- C Toll Bridge Seismic Retrofit Program Summary Schedule
- D Regional Measure 1 Program Cost Detail
- **E** Regional Measure 1 Program Summary Schedule

Appendix A: Toll Bridge Seismic Retrofit Program (\$Millions)

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail

Contract	EA Number	AB 144 Budget	Approved Changes	Current Budget	Actual Cost To Date (08/2005)	Estimate at Completion	At-Completion Variance
а	b	С	d	e = c + d	f	g	h =g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project							
East Span - Skyway Capital Outlay Support Capital Outlay Construction Total	01202X	197 1,293 1,490	-	197 1,293 1,490	110 889 999	197 1,293 1,490	- - -
East Span - SAS Superstructure Capital Outlay Support Capital Outlay Construction Total	0120FX	215 1,754	-	215 1,754	14	215 1,754	-
East Span - SAS E2/T1 Foundations Capital Outlay Support Capital Outlay Construction Total	0120EX	1,968 53 314 366	- - -	1,968 53 314 366	14 7 66 73	1,968 53 314 366	- - - -
SAS W2 Foundations Capital Outlay Support Capital Outlay Construction Total	0120CX	10 26 36	- - -	10 26 36	9 26 35	10 26 36	- - -
YBI Transition Structures Capital Outlay Support Capital Outlay Construction Total	0120PX	79 299 378	- - -	79 299 378	7 - 7	79 299 378	- - -
Oakland Touchdown Capital Outlay Support Capital Outlay Construction Total	01204X	74 284 358	- - -	74 284 358	19 - 19	74 284 358	- - -
YBI South/South Detour Capital Outlay Support Capital Outlay Construction Total	0120RX	30 132 161	- - -	30 132 161	13 23 36	30 132 161	- - -
Existing Bridge Demolition Capital Outlay Support Capital Outlay Construction Total	01209X	80 239 319		80 239 319	0 -	80 239 319	- - -
YBI/SAS Archeology Capital Outlay Support Capital Outlay Construction Total	01207X	1 1 2	- - -	1 1 2	1 1 2	1 1 2	- - -

Appendix A: Toll Bridge Seismic Retrofit Program (\$Millions)

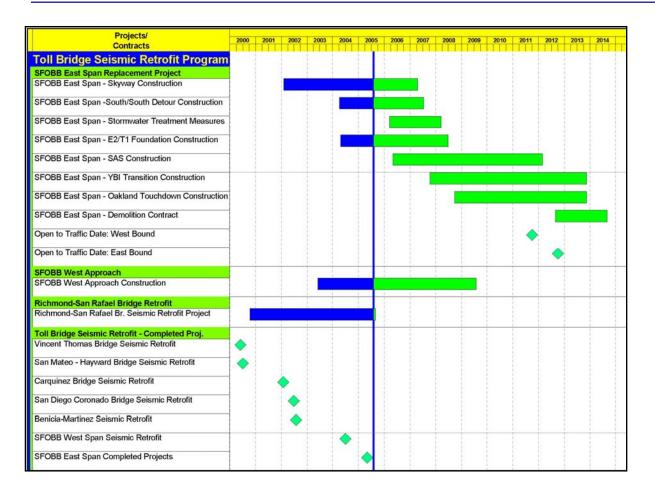
San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail (Cont.)

Contract	EA Number	AB 144 Budget	Approved Changes	Current Budget	Actual Cost To Date (08/2005)	Estimate at Completion	At-Completion Variance
a	b	c	d	e = c + d	f	g	h =g - e
YBI - USCG Road Relocation Capital Outlay Support Capital Outlay Construction Total	0120QX	3 3 6	- - -	3 3 6	3 3 5	3 3 6	- - -
YBI - Substation and Viaduct Capital Outlay Support Capital Outlay Construction Total	0120GX	7 12 18	- - -	7 12 18	6 11 17	7 12 18	- - -
Oakland Geofill Capital Outlay Support Capital Outlay Construction Total	01205X	2 8 11	- - -	2 8 11	2 8 11	2 8 11	- - -
Pile Installation Demonstration Project Capital Outlay Support Capital Outlay Construction Total	01208X	2 9 11	- - -	2 9 11	2 9 11	2 9 11	- - -
Stormwater Treatment Measures Capital Outlay Support Capital Outlay Construction Total	0120JX	6 15 21	- - -	6 15 21	3 - 3	6 15 21	- - -
Right-of-Way and Environmental Mitigation Capital Outlay Support	0120X9	-	-	-	-	-	-
Capital Outlay & Right-of-Way Total	04343X &	72 72	-	72 72	39 39	72 72	-
Sunk Cost - Existing East Span Retrofit Capital Outlay Support	04343X &	39		39	39	39	
Capital Outlay Support Capital Outlay Construction Total		31 70	- -	31 70	31 70	31 70	- -
Other Capital Outlay Support		00		20	00	00	
Environmental Phase Pre-Split Project Expenditures Non-project Specific Costs		98 45 20	-	98 45 20	98 45 3	98 45 20	-
Total		163	-	163	146	163	-
Subtotal East Span Capital Outlay Support Subtotal East Span Capital Outlay		959	-	959	380	959	-
Construction & Sunk Costs Other Budgeted Capital		4,492 35	-	4,492 35	1,106 -	4,492 35	- -
Total SFOBB East Span Replacement Project		5,487	-	5,487	1,487	5,487	-

Appendix B: Toll Bridge Seismic Retrofit Program Cost Detail (\$Millions)

Project	AB 144 Budget	Approved Changes	Current Budget	Actual Cost To Date (08/2005)	Estimate at Completion	At-Completion Variance
а	С	d	e = c + d	f	g	h = g - e
SEODE Fact Span Bankacament Brainet						
SFOBB East Span Replacement Project Capital Outlay Support	959	_	959	380	959	
Capital Outlay Support Capital Outlay Construction	4,492	-	4,492	1,106	4,492	-
Other Budgeted Capital	4,492 35	-	35	1,100	35	-
Total	5,487	-	5,487	- 1,487	5,486	-
SFOBB West Approach Replacement	5,467	-	5,407	1,401	5,460	-
Capital Outlay Support	120		120	67	120	
Capital Outlay Support Capital Outlay Construction		-				-
Total	309		309	151	309	-
	429	-	429	218	429	-
SFOBB West Span Retrofit	7.5		75	75	75	-
Capital Outlay Support	75	-	75	75	75	-
Capital Outlay Construction	233	-	233	230	233	-
Total	308	-	308	305	308	-
Richmond-San Rafael Bridge Retrofit	404		404		40-	(-)
Capital Outlay Support	134	-	134	121	127	(7)
Capital Outlay Construction	780	-	780	639	681	(99)
Total	914	-	914	760	808	(106)
Benicia-Martinez Bridge Retrofit						-
Capital Outlay Support	38	-	38	38	38	-
Capital Outlay Construction	140	-	140	140	140	-
Total	178	-	178	178	178	-
Carquinez Bridge Retrofit						
Capital Outlay Support	29	-	29	29	29	-
Capital Outlay Construction	85	-	85	85	85	-
Total	114	-	114	114	114	-
San Mateo-Hayward Bridge Retrofit						-
Capital Outlay Support	28	-	28	28	28	-
Capital Outlay Construction	135	-	135	135	135	-
Total	164	-	164	163	164	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16	_	16	16	16	_
Capital Outlay Construction	42	_	42	42	42	_
Total	59	_	59	58	59	_
San Diego-Coronado Bridge Retrofit	33		00	30	33	
Capital Outlay Support	34	_	34	33	34	_
Capital Outlay Construction	70	_	70	69	70	_
Total	104		104	103	104	
. • • • • • • • • • • • • • • • • • • •		_				- (=)
Subtotal East Span Capital Outlay Support	1,433	-	1,433	787	1,426	(7)
Subtotal East Span Capital Outlay & Sunk Costs	6,287	-	6,287	2,598	6,188	(99)
Subtotal Other Budgeted Capital	35	-	35	-	35	-
Miscellaneous Program Costs	30	-	30	25	30	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785	-	7,785	3,410	7,679	(106)
Program Contingency	900	-	900	-	1,006	106
Total Toll Bridge Seismic Retrofit Program	8,685	-	8,685	3,410	8,685	-

Appendix C: Toll Bridge Seismic Retrofit Program Summary Schedule



Appendix D: Regional Measure 1 Program Cost Detail (\$Millions)

Project	EA Number	June 2005 Budget	Approved Changes	Current Budget	Actual Cost To Date (08/2005)	Estimate at Completion	At-Completion Variance
a	b	С	d	e = c + d	f	g	h =g - e
New Benicia-Martinez Bridge Project							
New Bridge	00601_						
Capital Outlay Support	00001_	85		85	65	98	13
Capital Outlay Support Capital Outlay Construction		692	_	692	540	771	79
Total		777	-	777	605	869	92
I-680/I-780 Interchange							
Reconstruction	00606_						
Capital Outlay Support		33	_	33	30	35	1
Capital Outlay Construction		92	_	92	66	92	0
Total		126	-	126	96	127	2
I-680/Marina Vista Interchange							
Reconstruction	00604_						
Capital Outlay Support		19	_	19	19	21	1
Capital Outlay Construction		55	_	55	50	60	5
Total		74	-	74	69	81	6
New Toll Plaza and Administration							
Building	00604_						
Capital Outlay Support		14	-	14	13	14	-
Capital Outlay Construction		24	-	24	17	25	1
Total		39	-	39	31	39	1
Other Contracts	Includes EA's	s 00601_, 00608	. 00609	. 0060A . 006	OC . 0060E	.0060F .0	060G . and
		all Project Right		_,	_, _	_,,	_,
Capital Outlay Support		16	-	16	8	16	0
Capital Outlay Construction		38	_	38	14	49	11
Capital Outlay Right-of-Way		20	-	20	12	20	0
Total		74	-	74	35	85	11
Subtotal Capital Outlay Support		168	-	168	136	184	16
Subtotal Capital Outlay Construction		901	-	901	688	997	96
Subtotal Capital Outlay Right-of-Way		20	-	. 20	12	20	0
Project Reserves		13	-	13	-	56	43
Total New Benicia-Martinez Bridge							
Project		1,102	-	1,102	836	1,257	155

Appendix D: Regional Measure 1 Program Cost Detail (\$Millions) (Cont.)

Project	EA Number	June 2005 Budget	Approved Changes	Current Budget	Actual Cost To Date (08/2005)	Estimate at Completion	At-Completion Variance
a	b	С	d	e = c + d	f	g	h =g - e
Carquinez Bridge Replacement Project New Bridge	01301_						
Capital Outlay Support		60	-	60	60	62	2
Capital Outlay Construction		253	-	253	253	256	3
Total		314	-	314	313	319	5
Crockett Interchange Reconstruction	01305						
Capital Outlay Support	_	32	-	32	32	32	-
Capital Outlay Construction		74	_	74	69	74	-
Total		106	-	106	101	106	-
Existing 1927 Bridge Demolition	01309_						
Capital Outlay Support		16	-	16	7	16	-
Capital Outlay Construction		35	-	35	3	35	-
Total		51	-	51	10	51	-
Other Contracts	Includes EA's	01302_, 01303	_, 01304_	, 01306_, 013	07_, 01308_	, 0130A _, 01	30C_,
		0F_, 0130G_, 01 nd all Project R			, 00493_, 04	700_, 00607	_, 2A270_,
Capital Outlay Support	una 20020_ un	16	.g 0. 11	16	14	15	(1)
Capital Outlay Construction		19	_	19	15	18	(1)
Capital Outlay Right-of-Way		10	_	10	10	10	- ('')
Total		45	-	45	39	43	(2)
Subtotal Capital Outlay Support		124		- 124	113	125	1
Subtotal Capital Outlay Construction		381		- 381	341	383	2
Subtotal Capital Outlay Right-of-Way		10		- 10	10	10	-
Project Reserves		12		- 12	-	9	(3)
Total Carquinez Bridge Replacement							
Project		528		- 528	463	528	-

Appendix D: Regional Measure 1 Program Cost Detail (\$Millions) (Cont.)

Project	EA Number	June 2005 Budget	Approved Changes	Current Budget	Actual Cost To Date (08/2005)	Estimate at Completion	At-Completion Variance
а	b	С	d	e = c + d	f	g	h =g - e
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation	Includes Non	-TBSRA Expens	ses for EA	. 0438U_ and	04157_		
Capital Outlay Support		11	-	11	10	11	-
Capital Outlay Construction Project Reserves		91 -	-	91 -	101 -	91 -	-
Total		102	-	102	111	102	-
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	0415U_						
Capital Outlay Support	<u>-</u>	8	-	8	1	8	-
Capital Outlay Construction		17	-	17	-	21	4
Project Reserves		0	-	0	-	0	(0)
Total		25	-	25	1	29	4
Richmond Parkway Project (RM 1 Share Only)	Non-Caltrans	;					
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		6	-	6	4	6	-
Total		6	-	6	4	6	-
San Mateo-Hayward Bridge Widening	Includes EA's 00305_, 04501_, 04502_, 04503_, 04504_, 04505_, 04506_, 04507_, 04508_, 04509_, 27740_, 27790_, 04860_						
Capital Outlay Support	04300_, 0430.	35	- -	,_ 35	34	35	(0)
Capital Outlay Construction		180	_	180	174	176	(4)
Capital Outlay Right-of-Way		2		2	1	1	(1)
Project Reserves		1	-	1	-	1	(1)
Total		218	-	218	209	212	(6)
I-880/SR-92 Interchange							
Reconstruction	Includes EA's	23317_, 01601	. and 016	602			
Capital Outlay Support		29	_,	29	24	43	14
Capital Outlay Construction		95	_	95	-	119	24
Capital Outlay Right-of-Way		10	-	10	7	12	2
Project Reserves		0	-	0	-	12	12
Total		134	-	134	31	186	53
Bayfront Expressway Widening	Includes EA's	00487_, 01511	. and 015	512			
Capital Outlay Support		9	_,	9	8	8	(0)
Capital Outlay Construction		26	-	26	25	26	- '
Project Reserves		0	-	0	0	0	-
Total		35	-	35	33	35	(0)
US 101/University Avenue Interchange Modification	Non-Caltrans						
Capital Outlay Support	Galifalls	-	_	-	_	_	-
Capital Outlay Construction		4	_	4	4	4	-
Total		4	-	4	4	4	-
Subtotal Capital Outlay Support		383	_	383	326	414	31
Subtotal Capital Outlay Construction		1,702	_	1,702	1,337	1,824	122
Subtotal Capital Outlay Right-of-Way		42	_	42	29	43	1
Total Project Reserves		27	-	27	0	78	51
Total RM1 Program		2,154	-	2,154	1,692	2,359	205

Appendix E: Regional Measure 1 Program Summary Schedule



The following information is provided in accordance with California Government code Section 7550:

This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site work that contribute to these reports, as well as the report preparation and production, is \$1,574,873.